



Applicant : Scott C. Glasgow et al.
Appln. No. : 10/648,757
Filing Date : August 26, 2003
For : TUBULAR ENERGY MANAGEMENT SYSTEM FOR
ABSORBING IMPACT ENERGY
Atty. Docket No. : SHA01 P-355
Sheet 1 of 10

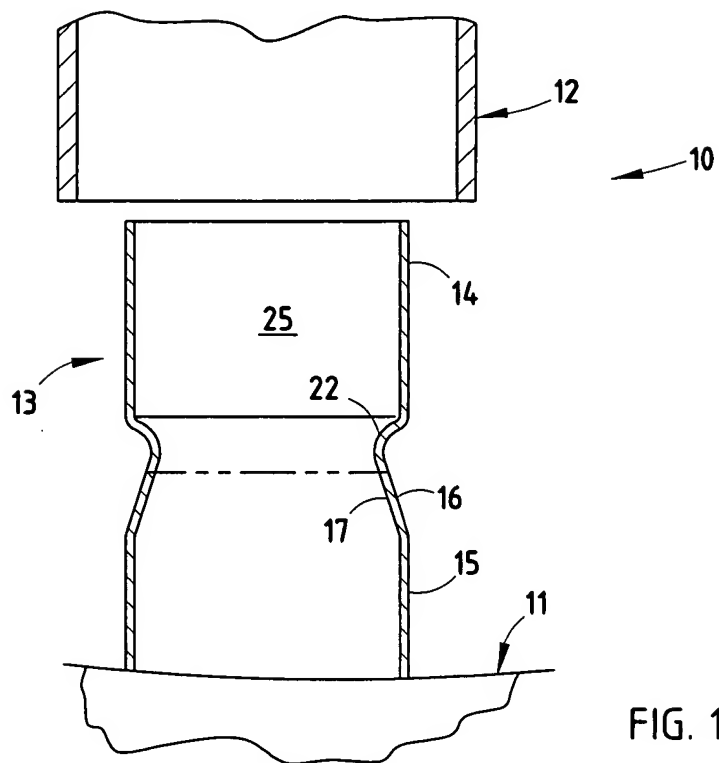


FIG. 1

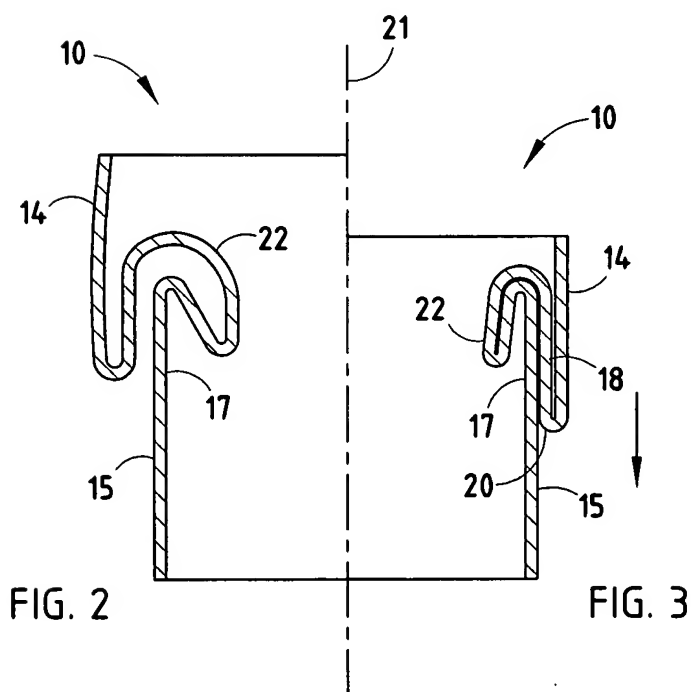


FIG. 2

FIG. 3

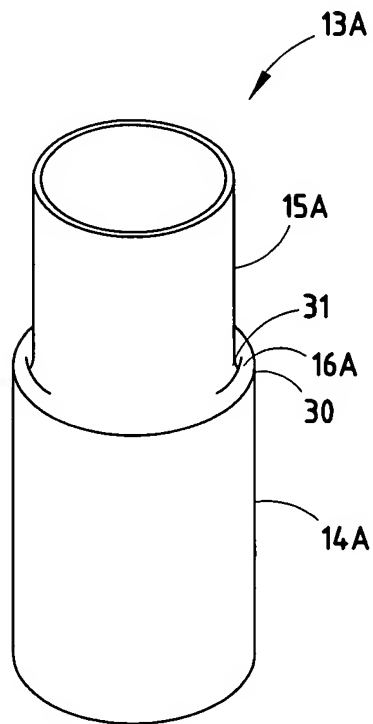


FIG. 4

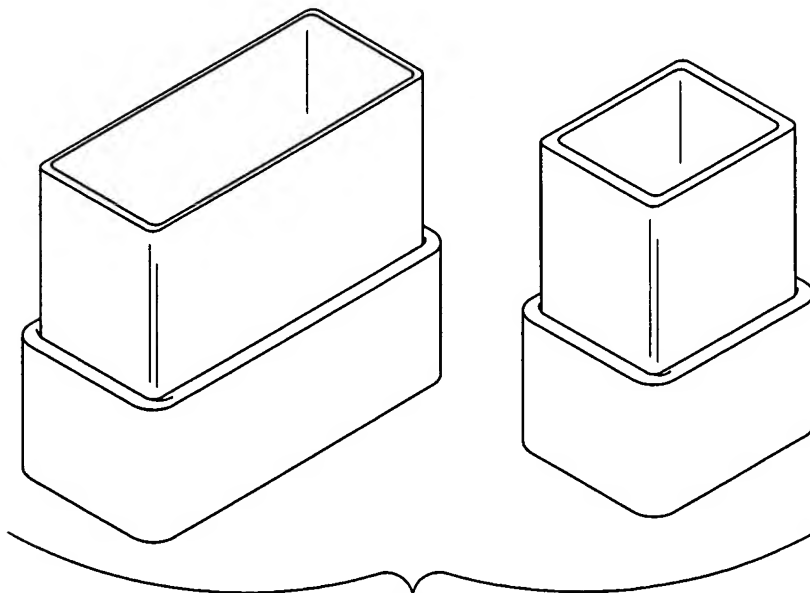
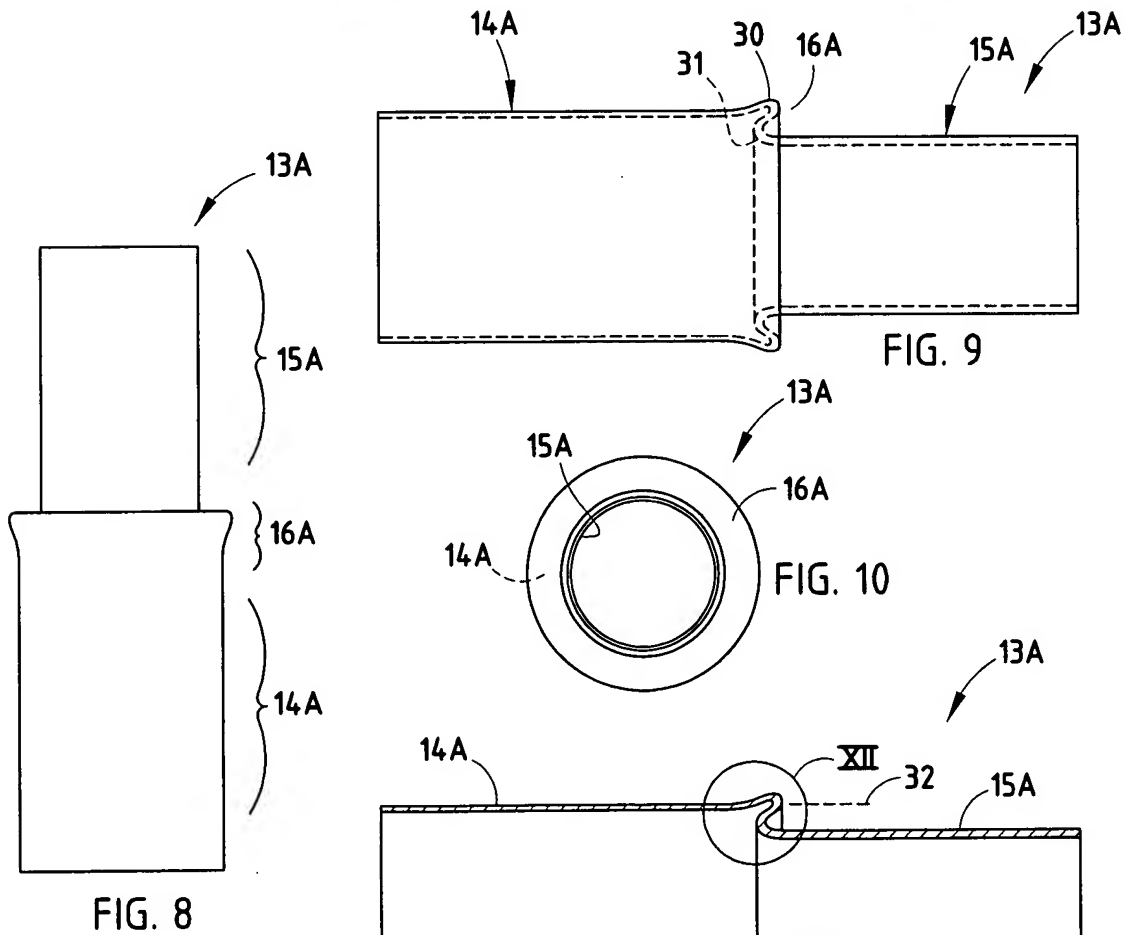
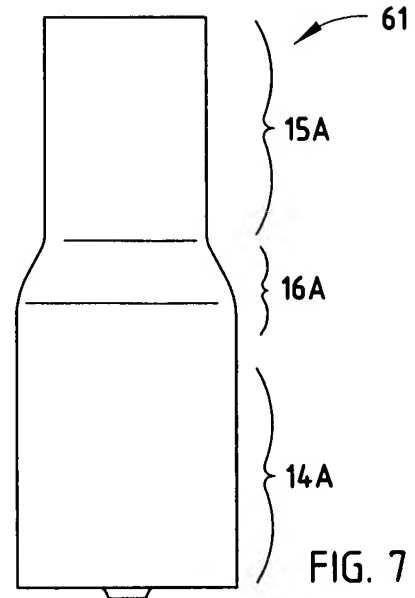
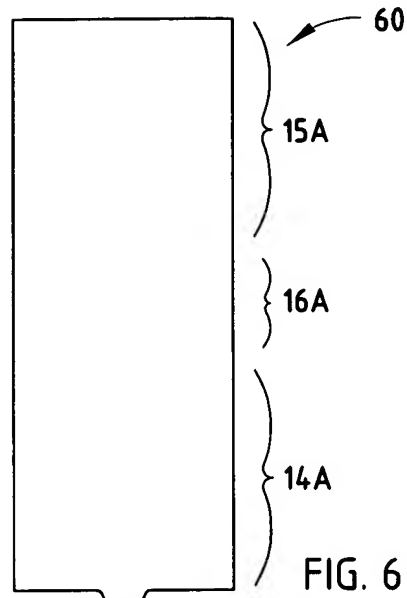


FIG. 5



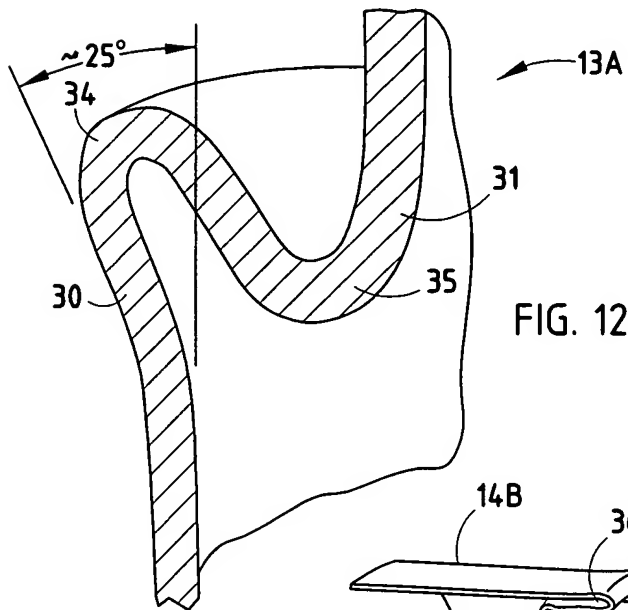


FIG. 12

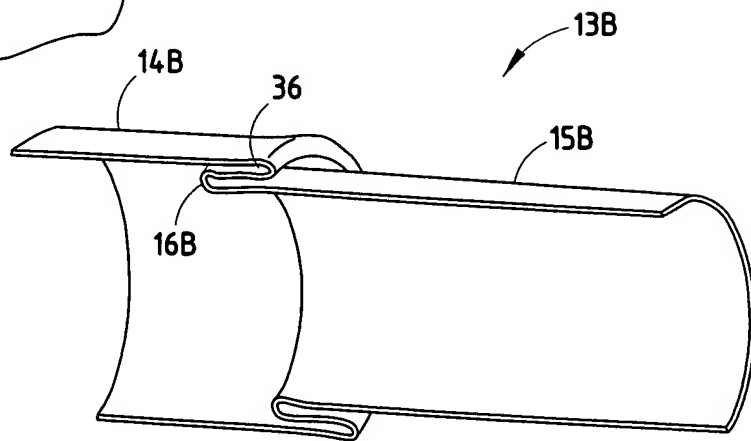


FIG. 13

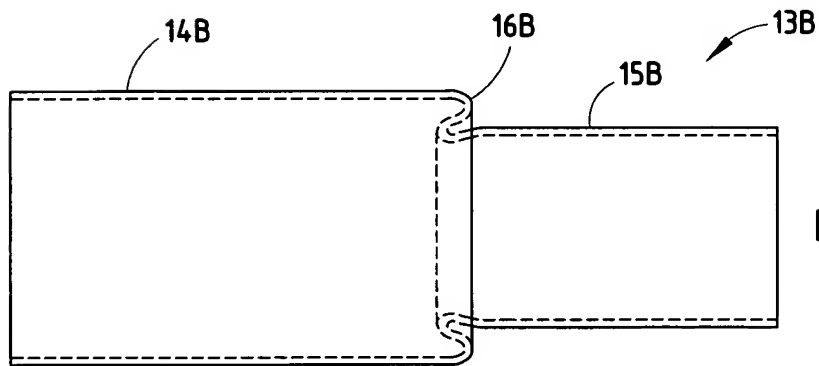


FIG. 14

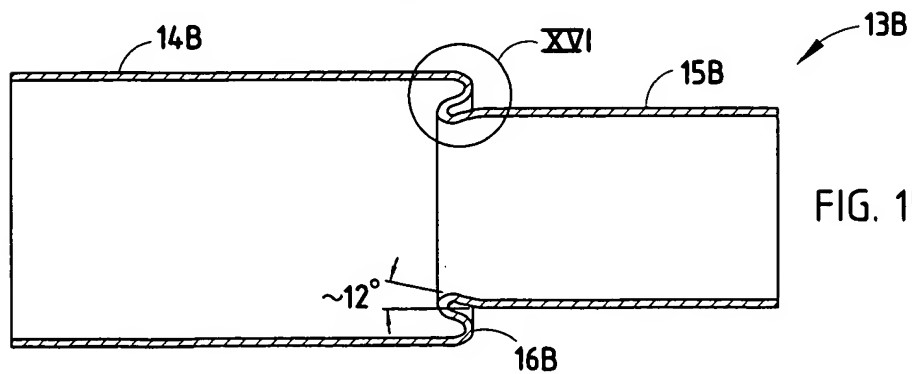
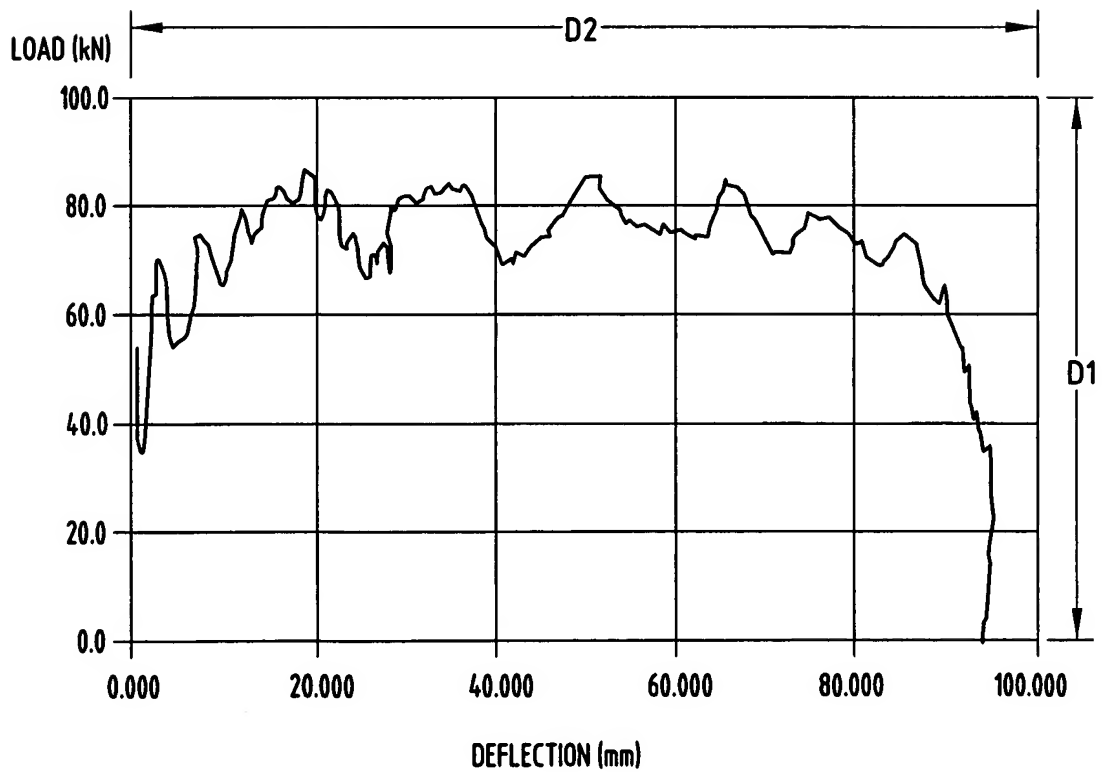
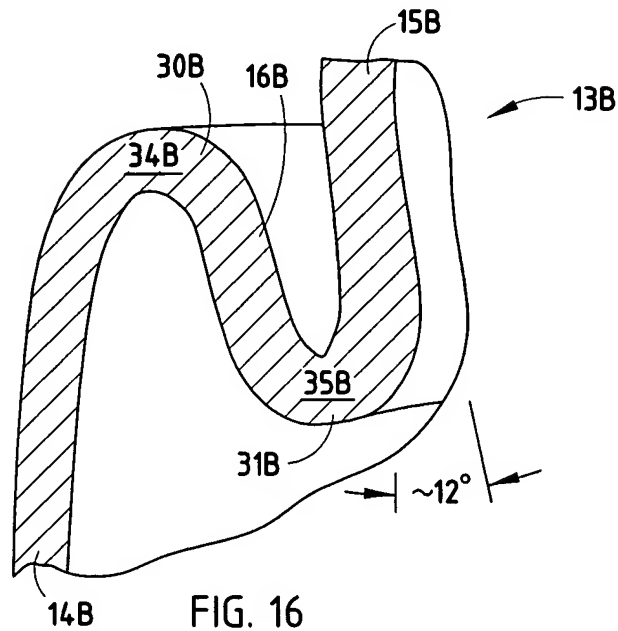


FIG. 15



ANNEALING COIL @ 20% POWER


	DISTANCE FROM BOTTOM OF TUBE	HARDNESS	TENSILE STRENGTH (KSI)
NON-ANNEALED  ANNEALED	25	29 HRC	135
	35	30 HRC	138
	45	30 HRC	138
	55	33HRC	149
	65	30.5 HRC	140
	75	23.5 HRC	118
	85	95 HRB	100
	95	90 HRB	89
	105	85 HRB	82
	115	85 HRB	82
	125	82 HRB	77
	135	82 HRB	77
	145	82 HRB	77
	155	85 HRB	82
	165	84 HRB	81
	175	82 HRB	77

FIG. 18

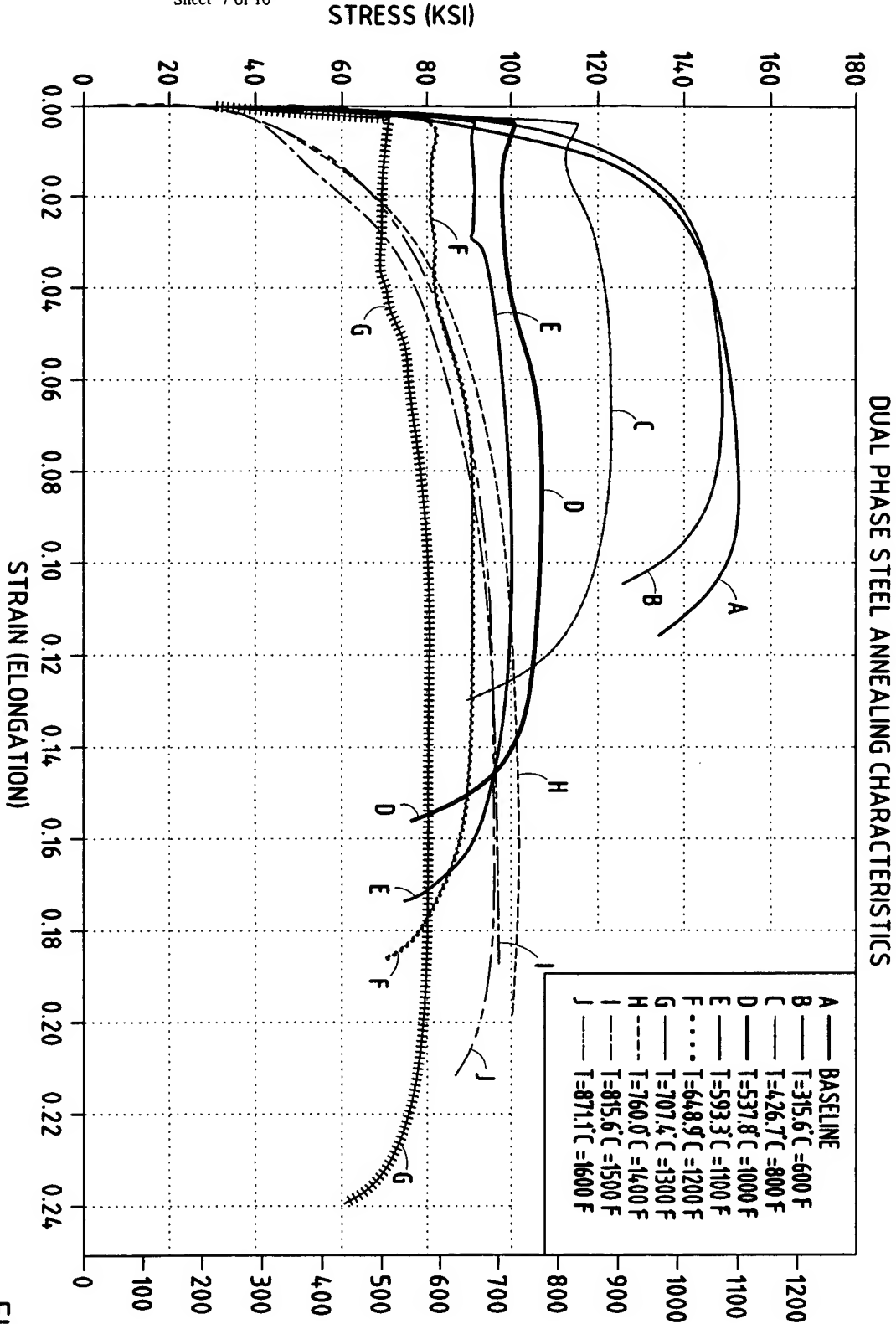
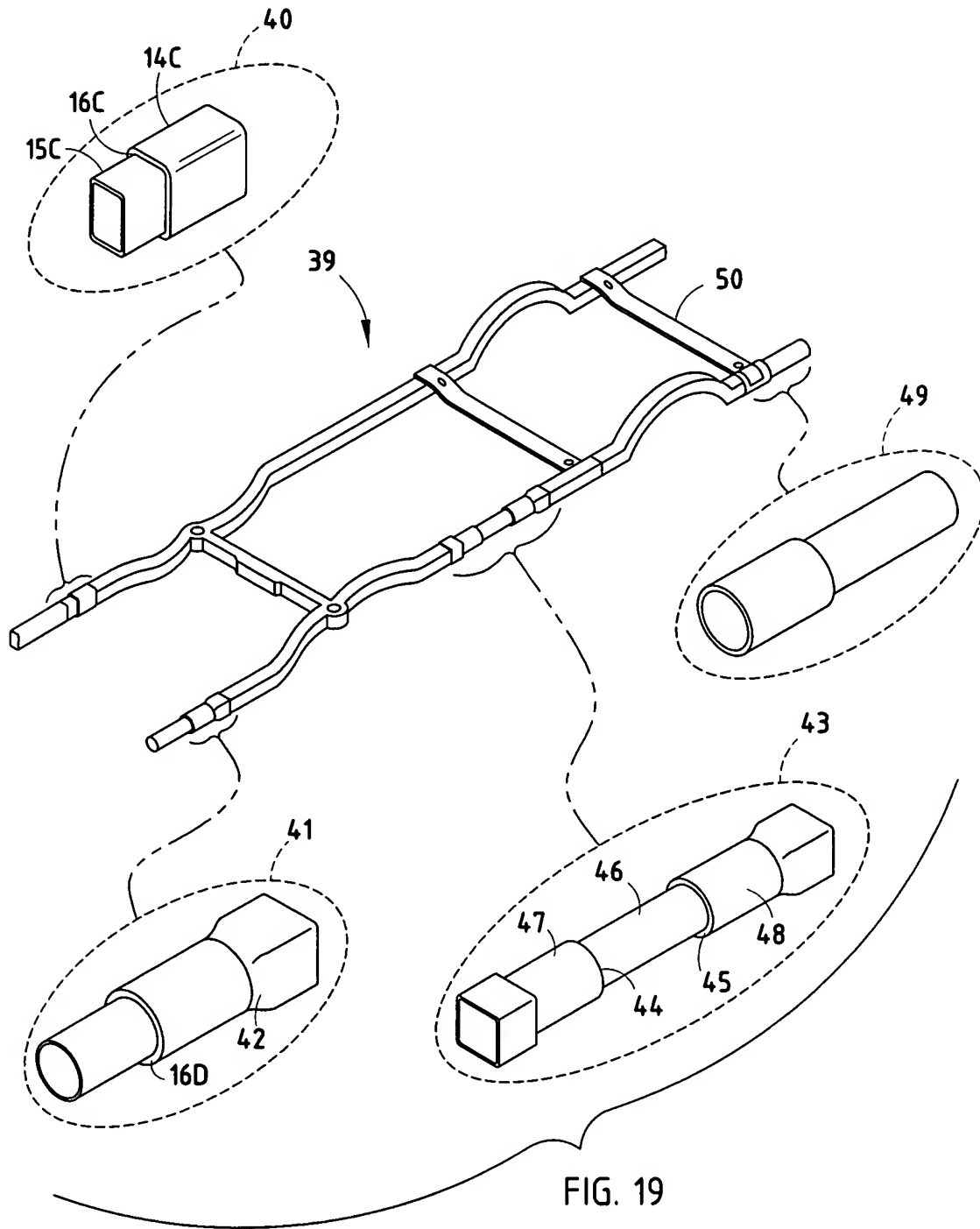


FIG. 18A



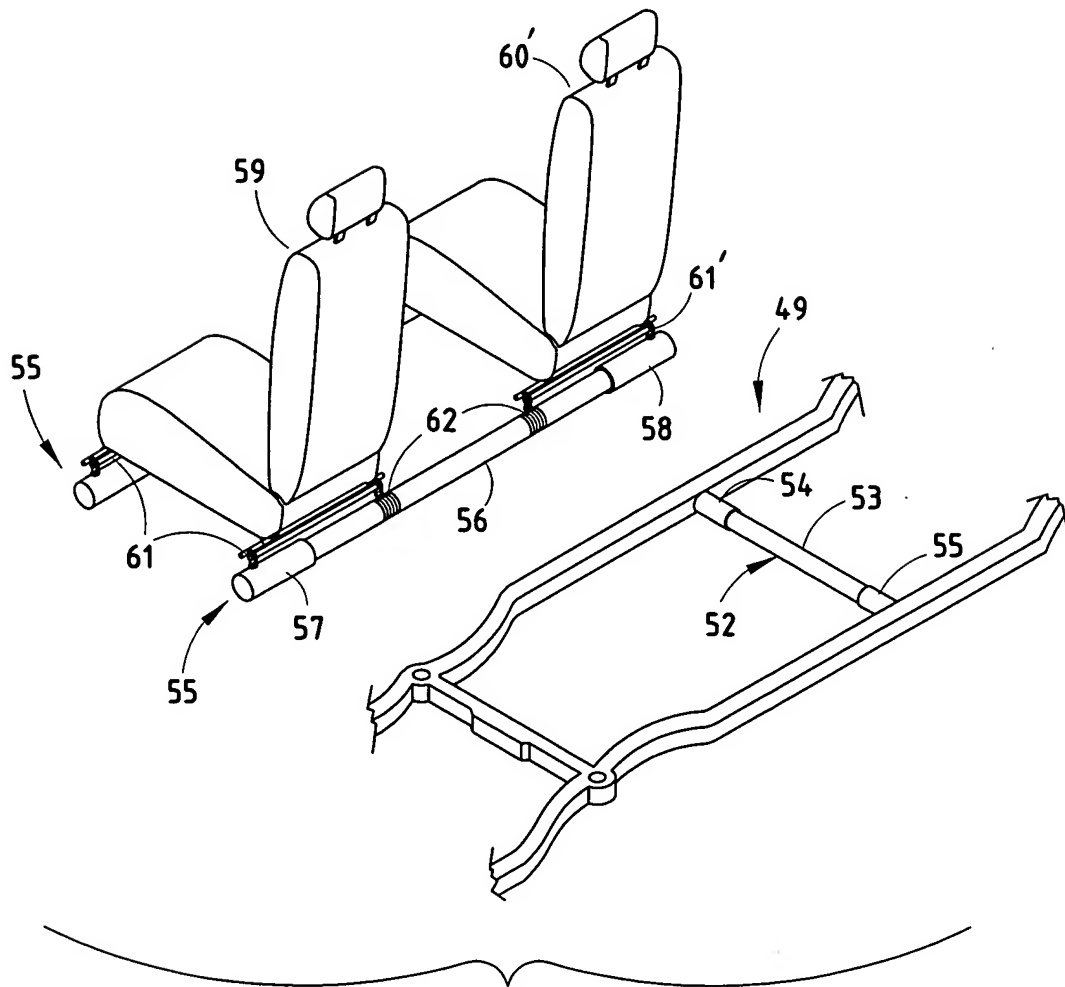


FIG. 20

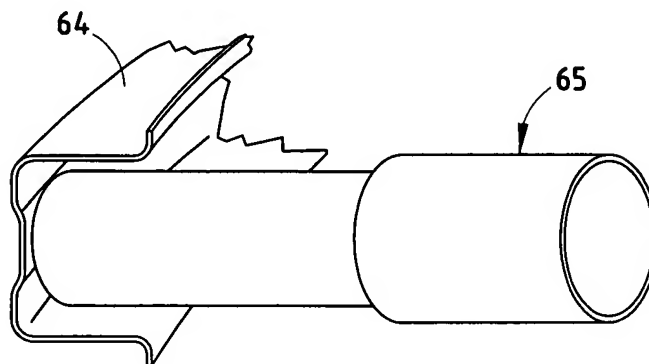


FIG. 21

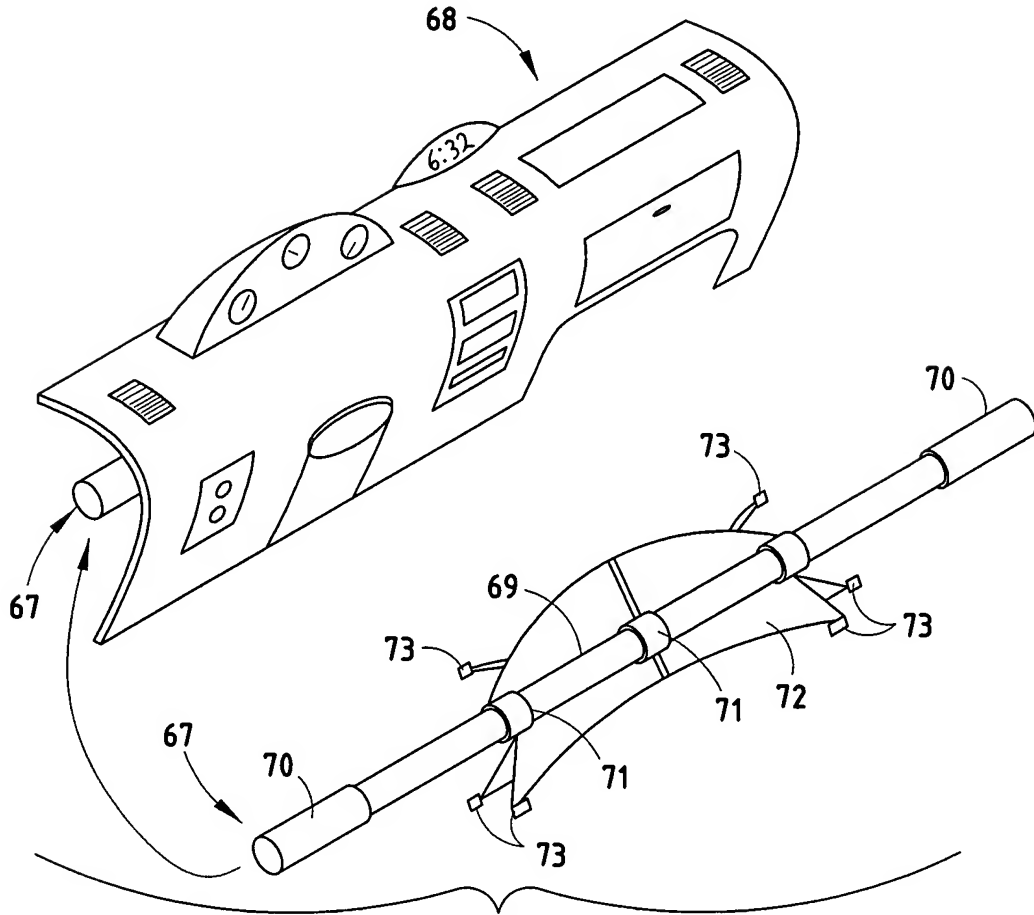


FIG. 22

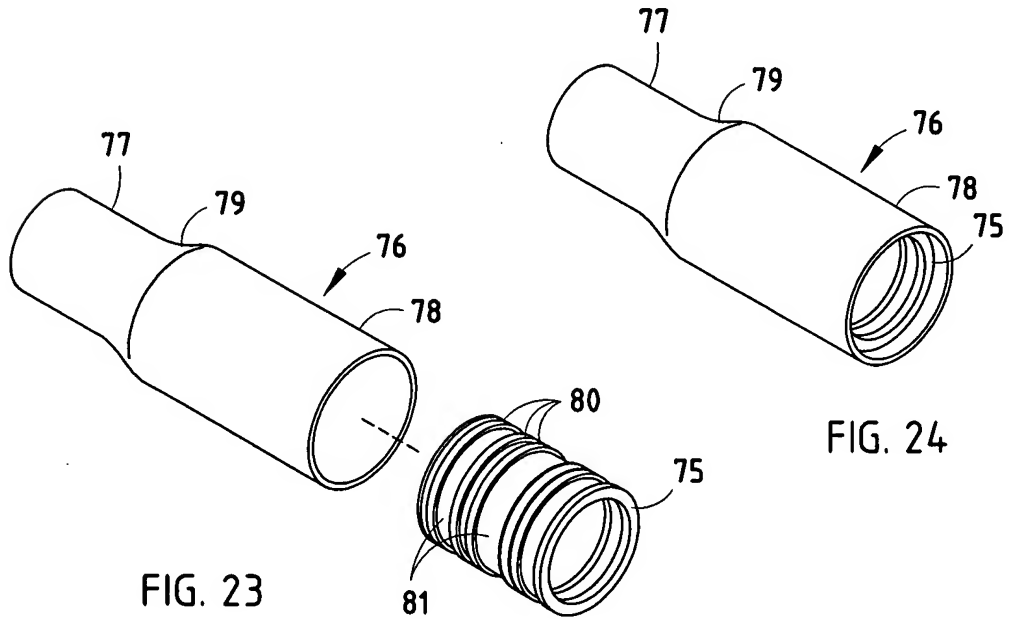


FIG. 23

FIG. 24